

## AMENDMENTS TO THE CLAIMS

1. (Currently amended) A network system for interconnecting a set of packet-switching network elements,  
the network system comprising a set of nodes , each node configured to interface with one of the packet-switching network elements and providing a connection of variable capacity to the other nodes of the network system;  
each one of the connections configured to transport data from its source node to its destination node and having an associated capacity and traffic load;  
the capacity of each connection controlled directly from its destination node based at least in part on the traffic loads associated with the connections configured to transport data to that destination node.
2. (Previously presented) The network system of claim 1 wherein the system is configured to set the capacity of a connection to zero when the connection has no traffic load associated therewith and traffic loads associated with other connections to the same destination node cumulatively exceed a predefined limit.
3. (Previously presented) The network system of claim 1 wherein the traffic loads and the capacities associated with the connections between the set of nodes are dynamic variables.
4. (Original) The network system of claim 1 where the capacities of the connections are cyclically optimized with a cycle time that is constant during regular system operation.
5. (Previously presented) The network system of claim 1 wherein a number, up to all, of the nodes are physically located at a single physical platform or are attached to a single chassis.
6. (Previously presented) The network system of claim 1 wherein one or more of the nodes are integrated into their associated packet-switching network elements.

7. (Previously presented) The network system of claim 1 wherein the system is at least in part a sub-network of a multi-use or public network, with additional network elements, which do not actively participate in the operation of the thus created sub-network, in pass-through mode either in between the nodes or in between the packet-switching network elements and the nodes of the sub-network.

8. (Previously presented) The network system of claim 1 wherein one or more of the packet-switching network elements comprises a network system as defined in claim 1.

9-20. (Canceled)